



A Mem-
ber of the
SARL



Visit our Website:
www.awasa.org.za

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AWA Committee:

- * President—Jacques ZS6JPS
- * Vice President and Western Cape—John ZS1WJ
- * Technical Advisor—Rad ZS6RAD
- * Secretary/PRO—Andy ZS6ADY
- * KZN—Don ZS5DR
- * Historian—Richard ZS6TF
- * Member—Ted ZS6TED

Newsletter

10th Anniversary

122

April 2016

Reflections:

I have noticed this last month, there has been quite a bit of activity on the AWA website, especially in the movement of used rigs.

I have been looking at the website on a regular basis and been wondering, how can we make this website more active.

There is a forum for posting listings or questions or thoughts or anything that has to do with this wonderful hobby of ours.

In fact, if any of you have browsed through the website, there is actually quite a bit that one can become involved in there.

But yet, it is used very little.

Every time I have gone on to the website, there is a little note up on the top of the page that tells you how active it is at that particu-

lar time. Every time I have gone there, there have been a number of none members active, but I have never seen any members active. Now maybe some of you, like me, just forget what your username and password are, so you become too lazy to sign in each time you go there.

But of course, most computers have an answer to this in that each time you log in to a website, a little message pops up saying "do you want explorer to remember your username or password for this site", and it works.

So if you are using a PC that you always use to go to the website, let it remember your credentials.

I really believe this site is an absolute asset to the AWA, but yet so under utilised. Make it yours and increase the usage.

Most clubs would charge some kind of fee for people to access their websites, in the form of a membership fee, but once again this is free use to all who sign up to use it.

I sometimes wonder, if we had to charge people membership fees, would we still be so big, 240 on our email listing and how many other members on the website who opted not to receive the Newsletter.

By far, one of the largest groups in the country, only beaten by the SARL itself.

Take some time to go to the website and let's make it more active than ever. Look forward to seeing you there.

Best 73

DE Andy ZS6ADY

WIKIPEDIA

Electrical Telegraph

From early studies of electricity, electrical phenomena were known to travel with great speed, and many experimenters worked on the application of electricity to communications at a distance.

All the known effects of electricity - such as sparks, electrostatic attraction, chemical changes, electric shocks, and later electromagnetism - were applied to the problems of detecting controlled transmissions of electricity at various distances.

In 1753 an anonymous writer in the *Scots Magazine* suggested an electrostatic telegraph. Using one wire for each letter of the alphabet, a message could be transmitted by connecting the wire terminals in turn to an electrostatic machine, and observing the deflection of pith balls at the far end.^[1] Telegraphs employing electrostatic attraction were the basis of early experiments in electrical telegraphy in Europe, but were abandoned as being impractical and were never developed into a useful communication system.

In 1800 Alessandro Volta invented the voltaic pile, allowing for a continuous current of electricity for experimentation. This became a source of a low-voltage current that could be used to produce more distinct effects, and which was far less limited than the momentary discharge of an electrostatic machine, which with Leyden jars were the only previously known man-made sources of electricity.

UK Radio Amateurs get ready for SAGHOTA

Activities such as Islands on the Air (IOTA) and Summits on the Air (SOTA) have proved hugely popular. It is hoped the new Sheds, Allotments and Green Houses on the Air (SAGHOTA) will have even greater appeal.

The RSGB published the announcement of the new SAGHOTA activity on page 11 of the latest Rad-Com and in the RSGB Clubs Newsletter sent to all Affiliated Clubs. SAGHOTA aims to celebrate the Great British Shed, Allotment or Green House and to have On the Air Days in 2016 so that these national institutions can be celebrated the way that radio amateurs know best with a good old bit of waffle (and a nice flask of tea, etc.) Operate your radio from a shed or greenhouse, or on an allotment (or immediately adjacent to one) on a SAGHOTA Day. Make many contacts - contact anyone and everyone - all contacts count except 'duplicates' on the same band, same day.

To add a small competitive 'edge' to SAGHOTA in 2016, a prize, or prizes, will be awarded for the most outstanding participant (judged on activities and QSOs), based on the uploaded Activators' information and any other information (details to be announced). Special certificates for Activators and Chasers can be downloaded from the SAGHOTA website.

SAGHOTA starts April 1 further information is at <https://sites.google.com/site/saghota/>

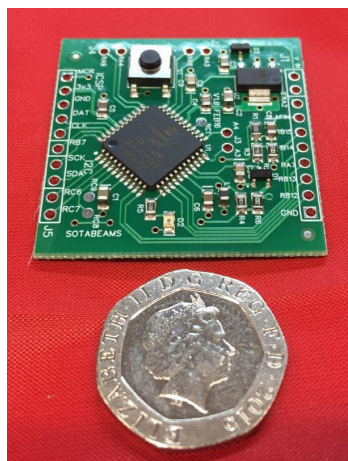
Beaches On the Air:

Amateur radio from the beach, for information visit www.beachesontheair.com/

New product - SSB/CW Filter Modules

SOTABEAMS has just announced a range of ready-built audio filter modules. Each module has two different filters which can be used to improve the selectivity of most radios. The narrow CW filter has a tuning indicator for easier use.

The modules have been designed to be simple to use, requiring just power and audio connections. Naturally, given SOTABEAMS portable pedigree, they have a low current requirement too (30 mA). Details and recordings of the filters in use at www.sotabeams.co.uk/digital-audio-filter-modules/



April

- 2 - RaDAR Challenge
- 5 - All schools open
- 7 - SARL 80 m QSO Party
- 9 - SARL Autumn QRP Contest
- 10 - SARL Youth Net at 15:00 UTC on 7 070
- 18 - World Amateur Radio Day
- 22 - Earth Day
- 23 - Pesach (1st day)
- 24 - ZS4 Sprint
- 25 - Closing date for May Radio ZS articles
- 27 - Freedom Day
- 30 - Pesach (8th Day)

May

- 1 - Worker's Day
- 2 - Public Holiday
- 5 - Ascension Day
- 7 and 8 - AWA Valve QSO Party
- 8 - Mother's Day; SARL Youth Net at 15:00 UTC

Operations Approved for DXCC Credit

The following operations are approved for DXCC Credit: Democratic People's Republic of North Korea, P5/3Z9DX, 2015 operation
Albania, ZA/IW2JOP, all operations.

African DX

Africa DX Net - every Saturday afternoon from 14:00 UTC on 14,260 MHz hosted by Mike, V51MA, Leon, A25SL, and Tinus, ZS6MHK.

Tunisia, 3V. Special call sign TS60ID is active until 20 May to commemorate Tunisia's 60th In-dependence Day. QSL via operators' instructions.

African Islands

IOTA frequencies

CW: 28 040 24 920 21 040 18 098 14 040 10 114 7 030 3 530 kHz

SSB: 28 560 28 460 24 950 21 260 18 128 14 260 7 055 3 760 kHz

Tunisia, 3V. A group of operators are active as 3V8SM from Djerba Island, IOTA AF-083, until 3 April. Activity is on the HF bands using CW and SSB. QSL via LX1NO.

Juan De Nova DXpedition news. Press Release from their Web page: (dated 28 March). FT4JA soon on the air - after 2 days at sea on board the Antsiva and almost 2 000 contacts in the log/mm, we are now at anchor off Juan de Nova. As stated on our permits, we cannot land tomorrow at dawn.

The whole team is looking forward to dismount and begin the assembly camp. Unloading plan is defined. We will install in parallel the camp radio, generators, antennas and the life of the camp, which is a substantial amount of work.

Depending on conditions, and if we do not encounter difficulties, we should be on the air late tomorrow.

This week in History

(The week starting 28 March 2016)

1732 - Franz Joseph Haydn (31 March 1732 - 1809) was born in Rohrau, Austria. Considered the father of the

symphony and the string quartet, his works include 107 symphonies, 50 divertimenti, 84 string quartets, 58 piano sonatas and 13 masses. Based in Vienna, Mozart was his friend and Beethoven was a pupil.

1805 - Fairy tale author Hans Christian Andersen (2 April 1805 - 1875) was born in Odense, Denmark. He created 168 fairy tales for children including the classics *The Princess and the Pea*, *The Snow Queen* and *The Nightingale*.

1853 - Vincent Van Gogh (30 March 1853 - 1890) was born in Groot Zundert, Holland. He was a Postimpressionist painter, generally considered the greatest Dutch painter after Rembrandt. During his short (10-year) painting career, he produced over 800 oil paintings and 700 drawings, but sold only one during his lifetime. During his life, Van Gogh suffered from despair and bouts of mental illness, at one point cutting off part of his own left ear. He committed suicide in 1890 by gunshot.

1860 - In the American West, the Pony Express service began as the first rider departed St Joseph, Missouri (3 April)

1966 - The School of Artillery and Armour in Potchefstroom is disbanded (31 March)

1966 - The School of Armour (Bloemfontein) and the School of Artillery (Potchefstroom) is established (1 April)

1979 - Near Harrisburg, Pennsylvania, the Three Mile Island nuclear power plant accident occurred in which uranium in the reactor core overheated due to the failure of a cooling valve (28 March)

1981 - Newly elected President Ronald Reagan was shot in the chest while walking toward his limousine in Washington, D.C., following a speech inside a hotel (30 March)

1982 - The beginning of the Falkland Islands War as troops from Argentina invaded and occupied the British colony located near the tip of South America. The British retaliated and defeated the Argentineans on 15 June 1982, after ten weeks of combat, with about 1,000 lives lost (2 April)

1991 - The Soviet Republic of Georgia, birthplace of Josef Stalin, voted to declare its independence from Soviet Russia, after similar votes by Lithuania, Estonia and Latvia. Following the vote in Georgia, Russian troops were dispatched from Moscow under a state of emergency (31 March)



Restoring a 1945 Aeronautical and General Instruments (AGI) R206 Mk. 1 Receiver

The AGI R206 Mk1 was produced late in WW11. It was assembled under British Government contract by the Aeronautical and General Instruments Co in the UK. This high sensitivity intercept receiver, designed and constructed in the UK, was produced as an equivalent to the United States Hallicrafters SX-28 and the National HRO receiver.

The main use in the UK for these receivers was in the “Y” service, a dedicated group of largely UK “hams” who had been commandeered by the UK military to run listening stations to pick-up enemy transmissions. The intercepted messages were always in morse code and operators needed to be competent at quite high speeds. The smallest error would cause great difficulties to the code breakers at Bletchley Park (where all the intercepted messages were sent) so the receivers needed to be very effective and very reliable. The receivers they used needed to offer accurate frequency, good selectivity and speed of operation when frequencies needed to be changed at a moments notice. Regular checks and calibrations of the receivers were carried out.

Not many of these units were produced as they only came into service towards the end of the war and they were shortly replaced by the Mk 2 that had a rotary rather than a drum dial. Frequency coverage was a continuous 0.55 - 30.0 MHz divided into 6 bands.

The version I obtained was serial No. 240 said to have been on the SAAF Shackletons but this seems unlikely as the unit was for base-stations. It weighs 150 lbs (almost 70 kg) when supplied with the flak proof box and external power-supply.

The unit was in poor condition and had been modified at some stage to include an “S” meter, using cathode current off one of the IF stages. My first stage of restoration was a complete strip down to the basic chassis.

The unit is like nothing I have seen before. It is solidly engineered. No amateur Yaesu/ Icom type plastics, thin metal and surface mounts! Photo above is the **RF** chassis after cleaning, repainting and partial re-assembly (the band coil carrier is absent). Note the shaft drive (lower left) with worm screw that operates the band change and the chain drive that indicates the channel selected! All capacitors and resistors were replaced, all coils were checked for continuity, and the valves checked and renewed where necessary. The picture left shows the complete unit with the band coil changer and coil carrier attached.

Having restored the RF unit (which was pretty straight forward) I turned my attention to the IF/ AF side of the radio. This is a completely separate unit that bolts onto the side of the RF chassis and then has a thick (6mm) steel flak-proof plate that attaches to the front.

Again most of the capacitors and resistors were replaced, all coils were checked for continuity and the valves tested and replaced as required. Two valves were found to be non-operational and equivalents were found.

I then bolted the two units together; attached the earth wire; plugged the connecting lead into the appropriate socket; and replaced the front steel panel, knobs, etc. This whole process took about two weeks.

Unfortunately that was only the beginning. Originally this unit had a stand-alone power supply that accommodated AC, DC and a vibrator unit to produce HT from a battery supply. It should be noted that this unit seems to have been designed for a battery supply, and the valve heaters are all wired in pairs so that a 12v LT supply can be used on “6” series valves. Nearly all of the valves were still British Cossor valves.

This meant that my next challenge was to produce a 250 volt HT supply with a stabilised 130 volt supply for the oscillator valve and RF section. This was completed using an old AR-88 transformer, 5Y3 rectifier valve, several 8 mμF electrolytic capacitors, two large chokes and a VR130 voltage stabilising valve.



Having carried out all the repairs, and carefully checked the unit for the usual “stupid errors” it was time for the “smoke” test. I

turned-on the power supply and flicked the switch on the set. The lights came on, the valves heated and I tentatively listened to the headset (there is no build-in speaker). Absolutely nothing, no hiss no crackle – nothing. Then I realized I had no antenna! Fortunately I wasn't wearing the headset because when I did connect it, it became a loudspeaker. This is the first set that I have used that has zero internal noise at full volume. There is literally NO internal noise.

I then crudely aligned the unit (using a signal generator and my digital receiver. The sensitivity is stunning. The selectivity is good. It works as well (if not better) than any of my other radios. Considering that it is almost exactly 70 years old the performance is really impressive.

Where it doesn't perform is accuracy of frequency. In fact the way the set is designed clearly indicates that tuning repeatability (on multiple verniers) was important but not the exact frequency! This is emphasised by the manual that tells you (over several pages) how to reset to a frequency (repeatability of signal location) but emphasises that the numbers on the dial are not necessarily correct!



This is the completed unit with the adjacent power supply. It was a real pleasure to get the unit up and running after a long time of dis-repair,

Viv Stuart-Williams.
19-11-2013



Farewell to a Friend

On Sunday 17th April, a few of us got together at the Harvard Café at Rand Airport to have a breakfast with Selwyn ZS6SEL and bid him farewell as he moves back down to KZN.

Selwyn was around when the AWA started up and he and Om Ray were regulars at all the AWA happenings either selling and buying or just there for the moral support.

Selwyn became a regular face at all the fleamarkets and was well known and liked by many. Now of course the guys in KZN are going to have to get used to having him back again. Selwyn's original stomping grounds before moving up to Gauteng, was Durban. So now he is just going home again.

Shalom Selwyn, we look forward to hearing you on the SSB nets.



AWA Valve QSO Party

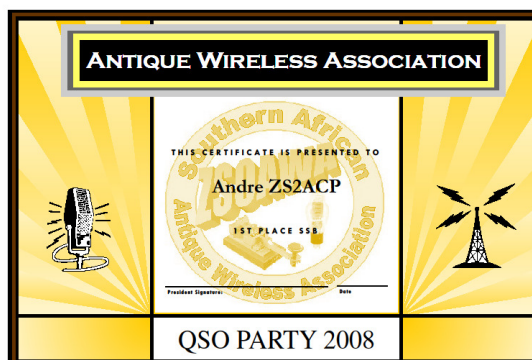
1. The aim of the AWA QSO party is to create activity on the 40 and 80 meter bands. It is a phone only contest.
2. Dates. Saturday 14th and Sunday 15th May 2016. The Saturday will be an **AM** QSO Party and the Sunday an **SSB** QSO Party
3. Time. From 16:00 - 18:00 SAST (both dates)
4. Preferably, Valve radio's, or radio's with valves in them may be used. The output power may not exceed 100w, unless the rig itself has a higher output power. (FTdx400 etc)
5. Frequencies - 80m 3,600 to 3650 Mhz
40m 7,050 to 7,100 Mhz
6. Exchange - call sign, RS and consecutive serial numbers starting at 001, plus type of radio used. eg HT37 Tx.
7. Scoring - All valve radio—3 points per contact
Hybrid (valve & solid state) - 2 points per contact
Solid State Radio - 1 point per contact

Multiplier: (what you use)
All Valve Radio—3 points per contact
Hybrid (valve and solid state) 2 points per contact
Solid State Radio—1 point per contact
8. Certificates will be awarded to the first three places in each category. (AM/SSB)
9. Sponsor : The Antique Wireless Association of Southern Africa (AWA).

All contact logs to be sent to the:

Antique Wireless Association
P.O. Box 12320
Benoryn
1504

Email: andyzs6ady@vodamail.co.za



A Special Receiver—J-A3F Saucepan Special

By Jacques ZS6JPS

Laurence Orchard was one of Ever Ready's senior executives. In 1948 he was on a visit to their South African subsidiary, BEREC (the British Ever Ready Export Company).

While there he was approached by the man in charge of broadcasting in Nyasaland and Rhodesia. He wondered if Ever Ready could produce a tropicalised dry-battery radio that could sell for £5, as this was all that many members of the rural community could afford. The company rose to the challenge and developed a small 4 valve (DK91, DF91, DAF91, DL92) shortwave receiver that was powered by a B136 battery (90V). One problem was to find a cheap housing for the receiver. This was cleverly solved by using a blue-sprayed metal case that was made by the British Aluminium saucepan factory. It was basically a 10-inch saucepan with the handle removed and a hole punched in the bottom for the loudspeaker. The radio sat on top of the B136 as the battery was too big to fit inside.

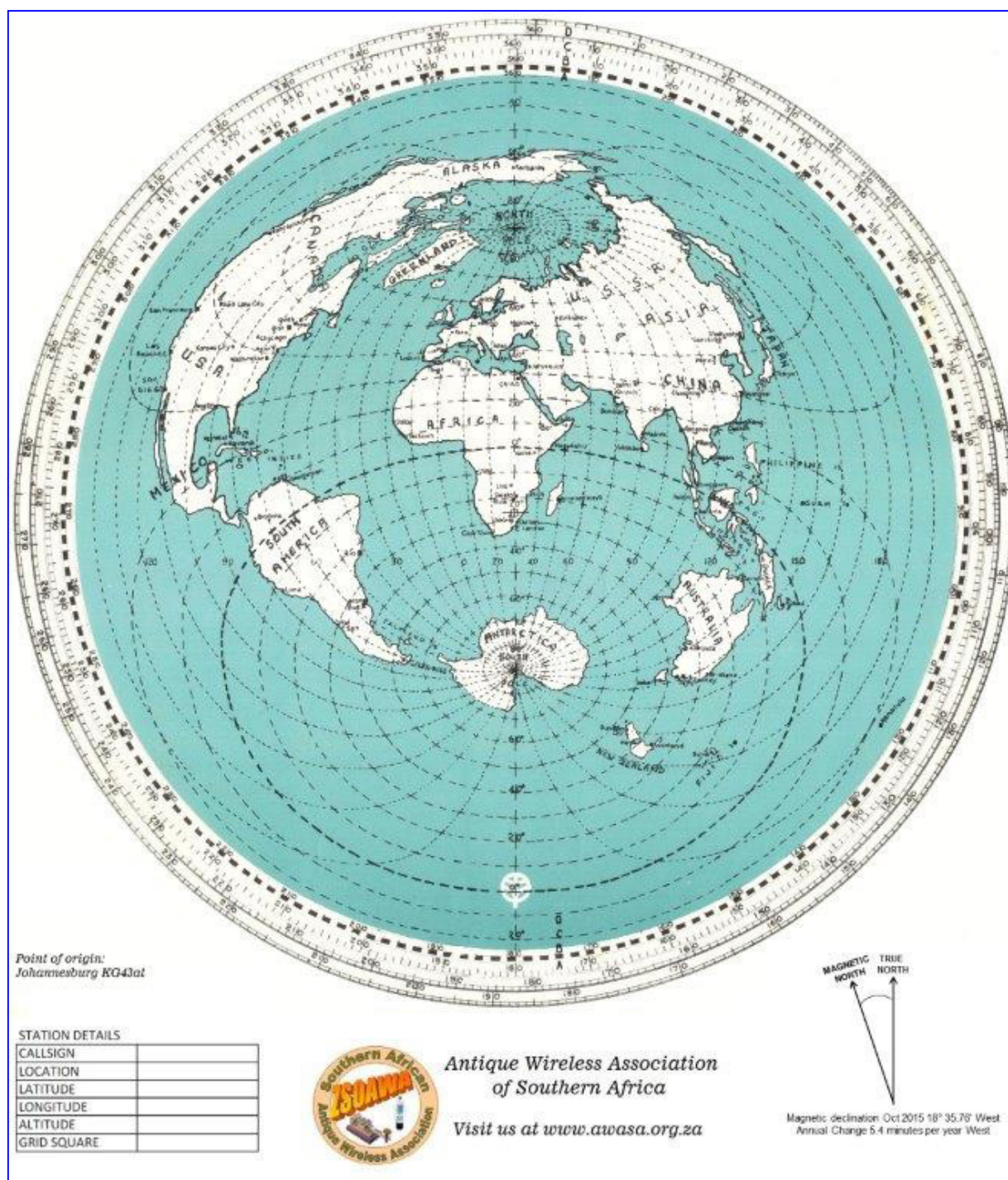
So was born the J-A3F (the 'J' Type or 'Saucepan Special' as it came to be known), launched in September 1949, for SW 25m to 90m. Designed for the African market, tropicalised aluminium insect-proof cabinet, sprayed blue (allegedly research had shown that Africans were superstitious about almost every other colour, but there is no evidence of this) possibly because the Ever Ready battery packs are blue, though later BEREC packs were sold.

The radio was sold in many parts of the world, including Malasia, and almost a quarter of a million were produced. Two models were made: The BEREC "Saucepan Special" version J-A3F (SW only) and J-A4F (MW & SW, Exhibited in 1954), both using BEREC branded B103 Combo pack battery.

Sources:

<http://www.historywebsite.co.uk/Museum/Engineering/Electronics/EverReady/EverReady.htm>





This Azimuthal map is ready to go to print.
Centered on Johannesburg it will be a great addition to any shack.

If you are interested in getting one of these, please send an email to info@awasa.org.za. For Jacques ZS6JPS attention. Jacques will be getting quotes on printing costs according to quantities, so the more we order, the cheaper they will be.

With the requests we have had for the map so far, a price has been set at R150.

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**Antique Wireless Association
of Southern Africa**

Mission Statement

Our aim is to facilitate, generate and maintain an interest in the location, acquisition, repair and use of yester-days radio's and associated equipment. To encourage all like minded amateurs to do the same thus ensuring the maintenance and preservation of our amateur heritage.

Membership of this group is free and by association. Join by logging in to our website: www.awasa.org.za

Notices:**Net Times and Frequencies:**

Saturday 05:00—AM Net—3615
Saturday 07:15—Western Cape SSB Net— 7140 (Alternate 3630)
Saturday 07:30—KZN SSB Net—7150
Saturday 08:30— National SSB Net— 7140; relayed on 14135 beaming to WC and on Echolink (ZS0AWA-L)
Saturday 14:00— CW Net—7020
Wednesday 19:00— AM Net—3615, band conditions permitting.

Extensive collection of turntable parts, including phono needles, turntable styli and cartridges.
Also does repairs to turntables, record players, amplifiers and cassette decks.
Contact Alex Grushkin on 0824132792 or 0116405996

For Sale:

Collins 75A-4 receiver in excellent working condition.
Contact Dick ZS6BUN. 0826007398
